



City of Rochester
Civil Service

Exam Announcement

Municipal Civil Service Commission, Room 103A City Hall, Rochester, New York 14614
The City of Rochester is an Equal Opportunity Employer
Candidates must record Examination number and Title on the Application

Job Title :
Exam No.:
Salary Range :

PRINCIPAL ENGINEERING TECHNICIAN/CADD
P-75510
\$42,759 - \$55,808

PROMOTIONAL EXAM
CITY OF ROCHESTER EMPLOYEES ONLY
NO EXAM FEE REQUIRED

MINIMUM QUALIFICATIONS: Candidates must be currently employed with the City of Rochester and must have served continuously* at brackets 15 – 17 for the twelve (12) months immediately preceding the date of the examination AND must meet the following open competitive minimum qualifications:

- High school diploma or Equivalent; **AND**
- I. Associate's** or Bachelor's** degree in Civil, Mechanical or Structural Engineering; or Surveying or Construction; **AND** three (3) years of experience preparing construction plans, contracts, or bid packages using computer aided design and drafting (CADD) software, at least two (2) years of which must be in construction of street, water, or street lighting systems; **OR**
 - II. Associate’s** or Bachelor’s** degree **AND** five (5) years of experience as described in I above, at least four (4) years of which must be in construction of street, water, or street lighting systems.

*Candidates must have permanent competitive status or 55a status

**Candidates who expect to receive this degree or diploma by August 1, 2016, may participate in the examination. If successful on the examination, you will not be certified for appointment until you have submitted proof of completion of the requirements to the City of Rochester Examination Administration unit. Proof must be submitted no later than 2 (two) months after the completion of your degree or diploma; failure to do so will result in removal of your name from this list.

SPECIAL REQUIREMENTS:
Class D NYS Operator's License and an automobile available for daily use at time of appointment when assigned to the Construction or Permit Divisions.

DESCRIPTION OF DUTIES: This is a technical support position in the Department of Environmental Services. Employees of this class perform a variety of tasks associated with all phases of the design and execution of civil engineering projects involved with construction and improvement of street, water, and street lighting systems. Employees of this class work indoors and outdoors, in all types of weather conditions and may be required to work occasional nights and weekends on an assigned or on-call basis. Employees of this class work independently, under general supervision of an engineer or other senior-level employee. The Principal Engineering Technician is an experienced employee, independently monitoring or administering complex engineering projects and exercising more independent judgment than the Senior Engineering Technician. They may be required to supervise technicians or other subordinate employees and train them in work procedures. This classification differs from the Principal Engineering Technician title in its use of computer aided design and drafting (CADD) software. Performs related work as required.

TYPICAL WORK ACTIVITIES:
Identifies, assembles using computer aided design and drafting (CADD) software, and evaluates engineering data for proposed projects, such as location of existing structures; condition and location of subsurface utilities; traffic flow; soils, elevation, and drainage; and other related factors including survey data;
Prepares complex civil engineering specifications using computer aided design and drafting (CADD) software, prepares contracts, and bid packages;
Conducts or assists engineers in conducting pre-construction meetings, preparing visual aids using computer aided design and drafting (CADD) software and answering questions;
Performs tasks associated with bid administration, such as preparing and distributing bid packages, reviewing in-coming bids for compliance and evaluates bids against contract specifications;
Inspects and monitors contractor's work during the construction phase, rejecting inferior work, keeping records of quantities used, maintaining scheduled deadlines, and recommending authorization of payments;
Interprets contract language or permit requirements for contractor and his/her employees;
Identifies potential problems with designs or construction in field, and recommends to supervisor solutions for problems with traffic control, loss of utilities to customers, inadequate estimates of time or quantities, etc.;;
Records engineering data and dimensions in field-book and drafts new construction to scale and as built using computer aided design and drafting (CADD) software;
Writes reports, memoranda, and correspondence;
Responds to questions from the public, contractors, and other employees regarding questions and complaints about proposed or in-progress construction;

(CONTINUED ON BACK)

Application Deadline: SEPTEMBER 1, 2015

Application must be received or post marked by the application deadline date, otherwise this application will be rejected.

Examination Date: SEPTEMBER 26, 2015

Issue Date: AUGUST 6, 2015

May direct work crews during complex and technical phases of construction;
Sets up and maintains various files and inventories associated with projects, maps, contracts, etc.,
sometimes using a personal computer with specialized computer aided design and drafting (CADD) software.

SCOPE OF EXAMINATION: This exam is designed to evaluate knowledge, skills, and/or abilities in the following areas:

- 1. Mathematics, including algebra, geometry and trigonometry** - These questions test for the ability to read, analyze, and solve technician-level written problems involving addition, subtraction, multiplication, division, algebraic equations, geometric concepts and figures, and basic trigonometric functions.
- 2. Understanding and interpreting engineering plans and descriptive specifications** - These questions test for the ability to read and analyze technical drawings and written technical presentations, and to perform related computations. Some technical knowledge of construction and estimating terminology and methods will be required.
- 3. Land surveying principles and practices, including map interpretation** - These questions test for fundamental knowledge of the concepts, computations, and proper procedures involved in performing surveys for construction projects and land areas, including the use of theodolites, total stations, automatic levels, and other contemporary field survey equipment; and for the ability to read, analyze, and perform technical computations based on topographic and survey maps and site plans.
- 4. Principles and knowledge related to computer-assisted drafting (CAD) technology** - These questions test for knowledge of the basic concepts, terminology, and proper procedures to use when creating technical drawings utilizing computerized drafting software.
- 5. Engineering specifications and estimates** - These questions test for knowledge of the principles and practices of specification writing; for the ability to read and analyze specifications and other technical written material for public works projects; and for the ability to calculate cost and quantity estimates from technical presentations and/or engineering and construction drawings. Knowledge of estimating techniques and the proper methods of construction for specified projects will be required.
- 6. Principles and practices of civil engineering and technology** - These questions test for knowledge of technological and engineering concepts and their practical applications related to the construction, operation, and maintenance of public works projects, including roadways, bridges, buildings, water and sewage systems, and similar types of infrastructure.
- 7. Supervision** - These questions test for knowledge of the principles and practices employed in planning, organizing, and controlling the activities of a work unit toward predetermined objectives. The concepts covered, usually in a situational question format, include such topics as assigning and reviewing work; evaluating performance; maintaining work standards; motivating and developing subordinates; implementing procedural change; increasing efficiency; and dealing with problems of absenteeism, morale, and discipline.

Use of calculators is RECOMMENDED for this exam. Candidates are permitted to use quiet, hand-held, solar or battery powered calculators. Devices with typewriter keyboards, “Spell Checkers”, “Personal Digital Assistants”, “Address Books”, “Language Translators”, “Dictionaries”, or any similar devices are prohibited.

The New York State Department of Civil Service has not prepared a test guide for this examination. However, candidates may find information in the publication "How to take a written test" helpful in preparing for this test. This publication is available on line at: <http://www.cs.ny.gov/testing/localtestguides.cfm>

WEIGHT: The written test will contribute 100% to the final score.

RATING: This examination will be rated in accordance with Section 23.2 of the Civil Service Law. The provision of the NYS Civil Service Rules and Regulations dealing with the rating of examinations will apply to this exam.

SENIORITY: Seniority points shall be awarded based on the date of first permanent appointment in the classified service since last entry into the classified service of the employer for whom a promotional examination is administered (i.e. the City of Rochester or Rochester Housing Authority, as the case may be).

Points will be added to the score of every passing candidate as follows:	
at least 2 years but less than 7	1 point
at least 7 years but less than 11	2 points
at least 11 years but less than 16	3 points
16 years or more	4 points

MULTIPLE EXAMINATIONS SCHEDULED FOR THE SAME DAY: If you have applied to take a written test announced by either one or several local jurisdictions (county, town, city) scheduled to be held on the same test date as this written test, you must notify each of the local jurisdictions no later than two (2) weeks before the test date to make arrangements for taking all tests at one test site. All examinations for positions in State government will be held at a State examination center. To notify the City of Rochester that you will be taking more than one exam on the same day, please submit a Cross-Filer form. To access the City of Rochester’s Cross-Filer form and other employment forms, please copy the following into your browser: <http://www.cityofrochester.gov/article.aspx?id=8589935785>

GENERAL INFORMATION:
Applications: Applications may be obtained from room 103A City Hall, 30 Church St., Rochester, NY 14614-1280 or from our website www.cityofrochester.gov. A separate application must be completed for each separately numbered examination. Applications must be received by the close of business or postmarked by the Application Deadline date. Late applications will be rejected. Applications must be complete and accurate.
Application Fee: An Examination Application Fee is charged for the City of Rochester to process a candidate’s examination application. It is not a fee for the examination itself. Exam applications will NOT be reviewed until exam fee is paid. Late fees will NOT be accepted. Payment Due Date is the same as Application Deadline Date for applications.
There will be no exceptions to this requirement. There will be no refund of fees if a candidate does not qualify for an exam or if a candidate fails to appear for the examination.
Eligible Lists: Eligible lists contain the names of applicants who have received a passing score on the examination. Lists will be established in rank order, with the highest score being #1. In the case of tied scores, all persons at that score are considered equal. Candidates must be one of the top three candidates to be reachable for appointment. Promotional eligible lists are limited to present employees of the City and take precedence over open-competitive lists. All eligible lists are established for at least one year and may be extended for up to four years.
Change of Address: You are required to notify Civil Service of any address changes. Failure to do so may result in your removal from an eligible list.
Admission to the Exam: If you have not received notification of acceptance or rejection for this exam by the Wednesday before the exam date, please notify this office at 585-428-7454.
Residency Requirements: There is no residency requirement for participation in examinations. Preference in hiring may be given to City of Rochester residents on open-competitive lists pursuant to Section 23 of the Civil Service Law.
Military Candidates: Any candidate on active military duty in the United States Army, Navy, Marine Corps, Air Force or Coast Guard may be eligible for alternative testing dates if necessary. This applies to the State Militia and National Guard if under Federal Control. If alternate testing is necessary, candidates are required to notify Rochester Civil Service in writing, as quickly as possible. Any such requests must be accompanied by a DD214 or other official military document that substantiates the applicant’s active

military service at the time of the examination. Alternative testing accommodations will not be honored if requests are made more than 60 days after release from service.
Effective 1/1/98, the State Constitution was amended to permit candidates currently in the armed forces to apply for and be conditionally granted veteran’s credit in examinations. Any candidate who applies for such credit must provide proof of military status to receive the conditional credit. No credit may be granted after the establishment of the list. It is the responsibility of the candidate to provide appropriate documentary proof indicating that the service was in time of war, as defined in Section 85 of Civil Service Law, and that the candidate received an honorable discharge or was released under honorable conditions in order to be certified at a score including veteran’s credits.
Veterans: To apply for your Veterans’ or Disabled Veterans’ Credits you must submit an application which can be found at City Hall, 30 Church St., Rm. 103A or on-line at www.cityofrochester.gov, click on Jobs and then the Employment Forms link. Your Veterans’ Credits application can be submitted with your exam application, but MUST be submitted PRIOR to the establishment of the eligible list. Veterans’ Credits CANNOT be added to your score after the eligible list has been established. Veterans’ Credits can only be added to a passing score. You may waive using your Veterans’ Credits any time prior to appointment. You may use your Veterans’ Credits for hire only once in your lifetime.
Additional Exam Credits: In conformance with section 85-a of the Civil Service Law, children of firefighters and police officers killed in the line of duty shall be entitled to receive an additional ten points in a competitive examination for original appointment in the same municipality in which his or her parent has served. If you are qualified to participate in this examination and are a child of a firefighter or police officer killed in the line of duty in this municipality, please inform this office of this matter when you submit your application for examination. A candidate claiming such credit has a minimum of two months from the application deadline to provide the necessary documentation to verify additional credit eligibility. However, no credit may be added after the eligible list has been established.
Alternate Testing Arrangements: If alternate or special arrangements for testing are required, please indicate that on your application and attach appropriate documentation. A copy of the City of Rochester’s Alternate Test Policy is available in Room 103A, City Hall, or from our website. Deadline for requests is two (2) business days after exam.
Preferred List Applicants: Any employee whose name appears on a preferred list, and who submits an application by the deadline, may participate in a promotion examination, if qualified at time of layoff.